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International Journals

D.-O. Won, K.-R. Müller, and S.-W. Lee, "An adaptive deep reinforcement learning framework enables curling robots with human-like performance in real world conditions," Science Robotics, 2020. (Accepted)

D.-O. Won, B.-R. Lee, K.-S. Seo, H.-J. Kim, and S.-W. Lee, "Alteration of Coupling between Brain and Heart induced by Sedation with Propofol and Midazolam," PLOS ONE, Vol. 14, 2019, pp. 1-20.

M.-H. Lee, J. Williamson, D.-O. Won, S. Fazli and S.-W. Lee, "A High Performance Spelling System based on EEG-EOG Signals with Visual Feedback," IEEE Transactions on Neural Systems and Rehabilitation Engineering, Vol. 26, No. 7, 2018.

D.-O. Won, H.-J. Hwang, D.-M. Kim, K.-R. Müller, and S.-W. Lee, "Motion-based Rapid Serial Visual Presentation for Gaze-Independent Brain-Computer Interfaces," IEEE Trans. on Neural Systems & Rehabilitation Engineering, Vol. 26, Issue 2, 2018, pp. 334-343.

M. Lee, R. D. Sanders, S.-K. Yeom, D.-O. Won, K.-S. Seo, H. J. Kim, G. Tononi, and S.-W. Lee, "Network

Properties in Transitions of Consciousness during Propofol-Induced Sedation," Scientific Reports, Vol. 7, Issue 1, 2017, article 16791.

S.-K. Yeom, D.-O. Won, S.-I. Chi, K.-S. Seo, H.- J. Kim, K.-R. Müller, and S.-W. Lee, "Spatio-temporal Dynamics of Multimodal EEG-fNIRS Signals in the Loss and Recovery of Consciousness under Sedation using Midazolam and Propofol," PLOS ONE, Vol. 12, Issue 11, 2017, pp. 1-22.

D.-O. Won, H.-J. Hwang, S. Daehne, K.-R. Muller, and S.-W. Lee, "Effect of Higher Frequency on the Classification of Steady State Visual Evoked Potentials," Journal of Neural Engineering, Vol. 13, No. 1, 2015, pp. 1-11.

International Conference Proceedings

D.-O. Won, S.-H. Lee, K.-R. Muller, and S.-W. Lee , "Learning Machines Can Curl - Adaptive deep reinforcement learning enables the robot Curly to win against human players in an icy world," Proc. of NeurIPS, 2019.

D.-O. Won, T.-S. Eom, H.-J. Kim, B.-D. Kim, K.-R. Muller, S.-W. Lee, "Curly: An AI-based Curling Robot Successfully Competing in the Olympic Discipline of Curling," Proc. of International Joint Conference on Artificial Intelligence (IJCAI), Stockholm, Sweden, July 2018.

D.-O. Won and S.-W. Lee, "Improving Classification Performance of A Brain-Computer Interface System Based on Rapid Serial Visual Presentation By Shifting Stimuli," Proc. of 7th Graz Brain-Computer Interface Conference, Graz, Austria, 18-22, 2017.

M. Lee, D.-O. Won and S.-W. Lee, "Change in Functional Networks for Transitions between States of Consciousness during Midazolam-induced Sedation," Proc. of the 39th International Conference of Engineering in Medicine and Biology Society, Korea, July 11-15, 2017.

D.-O. Won and S.-W. Lee, "Shifting Stimuli for Brain Computer Interface based on Rapid Serial Visual Presentation," Proc. of the 5th International Winter Conference on Brain-Computer Interface, Korea, Jan. 9-11, 2017.
B.-R. Lee, D.-O. Won, and S.-W. Lee, "Classification of Wakefulness and Anesthetic Sedation using Combination Feature of EEG and ECG," Proc. of the 5th International Winter Conference on Brain□Computer Interface, Korea, Jan. 9-11, 2017.

Y.-J. Kee, D.-O. Won, and S.-W. Lee, "Classification of Left and Right Foot Movement Intention based on Steady-State Somatosensory Evoked Potentials," Proc. of the 5th International Winter Conference on Brain-Computer Interface, Korea, Jan. 9-11, 2017.

M.-H. Lee, D.-O. Won, S. Fazli, S.-W. Lee, "A High Speed-Accuracy Speller System based on Brain-Eye Integrated Signals," Proc. IEEE International Conference on Systems, Man and Cybernetics, Budapest, Hungary, Oct. 9-12, 2016.

N.-S. Kwak, D.-O. Won, K.-T. Kim, H.-J. Park, and S.-W. Lee, "Analysis of Steady State Visual Evoked Potential based on Viewing Distance Changes for Brain-Machine Interface Speller," Proc. IEEE International Conference on Systems, Man and Cybernetics, Budapest, Hungary, Oct. 9-12, 2016.

Y.-J. Kee, D.-O. Won, and S.-W. Lee, "Design of Duty-cycle Screening Paradigm for Steady-State Somatosensory Evoked Potential," Proc. 6th International Brain-Computer Interface Meeting, California, USA, May 2016, P-172.

D.-O. Won, D.-M. Kim, H.-J. Hwang, K.-R. Muller, and S.-W. Lee, "Toward Improved Covert Attention Application Using Shifting Stimuli," Proc. 6th International Brain-Computer Interface Meeting, California, USA, May 2016, P-40.

S.-K. Yeom, D.-O. Won, K.-S. Seo, H.-J. Kim and S.-W. Lee, "Combination of EEG and fNIRS for the (Un)Conscious Discrmination during Anesthesia," Proc. 6th International Brain-Computer Interface Meeting, California, USA, May 2016, P-168.

D.-O. Won, H. H. Zhang, C. Guan, and S.-W. Lee, "A BCI Speller based on SSVEP Using High Frequency Stimuli Design," Proc. IEEE International Conference on Systems, Man and Cybernetics, San Diego, CA, USA, Oct. 5-8, 2014, pp. 1087-1090.

D.-O. Won and S.-W. Lee, "Frequency-wise Optimal Duty-cycle Selection in Steady State Visual Evoked Potentials: A Pilot Study," Proc. 2nd IEEE International Winter Workshop on Brain-Computer Interface, Korea, Feb. 17-19, 2014, P-6.